

PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form ([see an example](#)) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below. Some articles will have been accepted based in part or entirely on reviews undertaken for other BMJ Group journals. These will be reproduced where possible.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Differences in drug utilisation between men and women - a cross sectional analysis of all dispensed drugs in Sweden
AUTHORS	Schenck-Gustafsson, Karin; Loikas, Desiree; Wettermarik, Björn; von Euler, Mia; Bergman, Ulf

VERSION 1 - REVIEW

REVIEWER	Flavia Franconi Department of Biomedical of Science University of Sassari, Italy Competing interest Gender Pharmacology mainly in cardiovascular system Diabetes mellitus oxidative stress No conflict of interest have to be declared
REVIEW RETURNED	15-Dec-2012

THE STUDY	no supplemental documents are present
GENERAL COMMENTS	<p>Major revision</p> <p>The title should be changed because it is almost impossible using administrative database to say if one thing is rational or irrational considering that they are also speaking about consume without knowing the patient conditions</p> <p>The introduction does not clearly show the aim of paper. In fact, it is not clear whether they are looking for sex gender differences in pharmacodynamics or pharmacokinetics or they are looking for sex difference in drug consume.</p> <p>The sentences between line 27-37 are unclear and apparently unlogical</p> <p>Sheppard JP, Singh S, Fletcher K, McManus RJ, Mant J; Capodanno D, Angiolillo DJ; Stramba –Badiale are not appropriately quoted because the first do not find any significant differences in prescribing trends across the English population, the other did not treat about utilization in real life but just in clinical trials</p> <p>Minor revision 22 line rational should be appropriate, rational and appropriate are not synonymous</p> <p>Methods</p> <p>It should clear specify that data involve only drug prescribing in ambulatory care</p>

	<p>Discussion</p> <p>Line 6 please specify that data refer to prescription in ambulatory care. It is too long, very repetitive and not clear therefore it should be reduce of about 50% and should be more straightful.</p>
--	---

REVIEWER	<p>Donald R Mattison MD Chief Medical Officer and Senior Vice President Risk Sciences International and Associate Director McLaughlin Centre for Population Health Risk Assessment, University of Ottawa</p> <p>I have no conflicts of interest with respect to this review.</p>
REVIEW RETURNED	26-Dec-2012

THE STUDY	Supplemental documents appropriate
RESULTS & CONCLUSIONS	This is a well designed, implemented and reported descriptive evaluation of sex differences in medication purchases in Sweden for 2010.
GENERAL COMMENTS	<p>The authors appear to confuse sex and gender in reporting, I believe the research activity only utilized sex differences in analysis however if gender differences were also collected they should report how that was done.</p> <p>Do formularies in Sweden determine which medications can be used based on indication and do any indications have sex specific differences which might influence the results of this research?</p>

VERSION 1 – AUTHOR RESPONSE

Reviewer: Flavia Franconi Department of Biomedical of Science University of Sassari, Italy

Competing interest

Gender Pharmacology mainly in cardiovascular system

Diabetes mellitus

oxidative stress

No conflict of interest have to be declared

Major revision

The tittle should be changed because it is almost impossible using administrative database to say if one thing is rational or irrational considering that they are also speaking about consume without knowing the patient conditions

The title is changed.

The introduction does not clearly show the aim of paper. In fact, it is not clear whether they are looking for sex gender differences in phacodynamics or pharmacokinetics or they are looking for sex difference in drug consume.

We have revised the introduction and hope it is clearer now.

The sentences between line 27-37 are unclear and apparently unlogical

The aim of the text is to clarify the difference between sex and gender in relation to rational prescribing. We have tried to clarify the text.

Sheppard JP, Singh S, Fletcher K, McManus RJ, Mant J; Capodanno D, Angiolillo DJ; Stramba –

Badiale are not appropriately quoted because the first do not find any significant differences in prescribing trends across the English population, the other did not treat about utilization in real life but just in clinical trials

Correct. These references are removed and replaced with the following:

Johnston N, Schenck-Gustafsson K, Lagerqvist B. Are we using cardiovascular medications and coronary angiography appropriately in men and women with chest pain? *Eur Heart J* 2011;32(11):1331-6.

Stock SA, Stollenwerk B, Redaelli M, Civello D, Lauterbach KW. Sex differences in treatment patterns of six chronic diseases: an analysis from the German statutory health insurance. *J Womens Health (Larchmt)* 2008;17(3):343-54.

Johnell K, Fastbom J. Gender and use of hypnotics or sedatives in old age: a nationwide register-based study. *Int J Clin Pharm* 2011;33(5):788-93.

Minor revision

22 line rational should be appropriate, rational and appropriate are not synonymous

Adjusted.

Methods

It should clear specify that data involve only drug prescribing in ambulatory care

We have reworded the text for clarification.

Discussion

Line 6 please specify that data refer to prescription in ambulatory care. It is too long, very repetitive and not clear therefore it should be reduce of about 50% and should be more straightful.

We have edited and shortened the discussion.

Reviewer: Donald R Mattison MD

Chief Medical Officer and Senior Vice President

Risk Sciences International

and

Associate Director

McLaughlin Centre for Population Health Risk Assessment, University of Ottawa

I have no conflicts of interest with respect to this review.

This is a well designed, implemented and reported descriptive evaluation of sex differences in medication purchases in Sweden for 2010.

The authors appear to confuse sex and gender in reporting, I believe the research activity only utilized sex differences in analysis however if gender differences were also collected they should report how that was done.

We have looked through this and removed gender in a few places where it was used incorrectly.

Furthermore, we have clarified in the text that it is sex differences we can analyze with our data.

Gender differences may only be hypothesised.

Do formularies in Sweden determine which medications can be used based on indication and do any indications have sex specific differences which might influence the results of this research?

Formularies in Sweden do not require information on indication, even though reimbursement

sometimes may. Very few (i.e. only some hormonal treatments) have sex specific indications. None of these are included in these analyses.

VERSION 2 – REVIEW

REVIEWER	Flavia Franconi -Department of Biomedical Science University of Sassari I declare No conflict of interest
REVIEW RETURNED	05-Feb-2013

- The author completed the checklist but made no further comments.